Original Article

Immunization Status Analysis Based On Knowledge Characteristics And Family Support

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ARTICLE INFO	ABSTRACT
	Background: Immunization is one of the preventative measures to spread the disease to other regions, which has proven to be very cost-effective. Good knowledge and support from families in implementing immunizations will improve the immunization status of children. The purpose is to know whether there is a relationship between basic immunization status based on knowledge and family support.
	Methods: The design used in the study is cross-sectional. The population is all mothers with babies. The sample size was 53 respondents using the Conventional Sampling technique. The independent variable of research is family knowledge and support. The dependent variable is immunization status. Data were collected using a questionnaire; then, data were analyzed using logistic regression tests with a significance level of $\alpha \le 0.05$. *Results*: The results showed that almost half of the respondents had sufficient knowledge of 26 respondents (49.1%), sufficient family support of 21 respondents (39.6%), and the complete immunization status of 34 respondents (64.2%). The results obtained by Overall Statistics with a significance value of (p) 0,000 which means that family knowledge and support affect immunization status. This means there is a Relationship between Basic Immunization Status Based on Characteristics of Knowledge and Family Support. *Conclusion*: There is a relationship between primary immunization status based on the characteristics of knowledge and family support

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🔗 *Cite this as*	:	Muhammed A, H., & Alex. (2022). Immunization Status Analysis Based On Knowledge Characteristics And Family Support. Journal of Applied Nursing and Health, 4(1), 136–141. https://doi.org/10.55018/janh.v4i1.67

Introduction

Developing the health sector in Indonesia currently has a double burden, namely the burden of infectious and degenerative diseases. Eradicating infectious diseases is very difficult because their spread has no administrative boundaries. Immunization is one of the preventative measures to spread the

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disease to other regions, which has proven to be very cost-effective (Darrah et al., 2020; Gheibi Hayat & Darroudi, 2019). Immunization activities are expanded into an immunization development program in the context of preventing the transmission of several diseases that can be prevented by immunization, namely tuberculosis, diphtheria, pertussis, measles, polio, tetanus, and hepatitis B. Immunization is an effort to prevent infectious diseases which are one of the priority activities of the Ministry of Health as a tangible form of government commitment to achieving Sustainable Development Goals (SDGs), significantly to reduce child mortality (Ashari, 2021; Shell, 2018)

Based on data from the World Health Organization (WHO) in 2014, infant mortality due to infectious diseases that should have been prevented by immunization is still high. An estimated 2-3 million deaths per year globally have been successfully prevented from diphtheria, measles, pertussis, pneumonia, polio, rotavirus diarrhea, rubella, and tetanus through immunization (Bangura et al., 2020; Darrah et al., 2020).

Factors that enable the incompleteness of immunization include age, employment, knowledge, attendance, and family support (Lau, 2017; MacDonald et al., 2018; Morrisey, 2012; Mushalpah, 2021). Several studies have found that maternal health behavior plays a significant role in basic immunization programs. The health behavior is a response shown by the mother to stimuli originating from outside and from within the mother herself and can be influenced by several factors (Gold et al., 2020; McClung et al., 2020). Factors related to complete primary immunization in infants with IDL coverage of 68.5% included maternal knowledge and maternal attitudes (Meites et al., 2019; Oliver, 2021). factors related to the status of complete primary showed that maternal knowledge, maternal attitudes, family support, and support of health workers have a relationship with primary immunization status complete 61.5%. Factors related to the actions of mothers in providing primary immunization to infants that there is a relationship between maternal knowledge, maternal attitudes, and family support related to the act of providing primary immunization to infants (Ilmiati, 2021; Islam et al., 2017; Salvatore et al., 2020). relationship between maternal knowledge and attitudes about immunization with the immunization status of children. Problems about factors related to complete primary immunization status in infants are essential to be examined so that the achievement of UCI targets can be achieved. Immunization is essential as an effort to prevent disease in infants and has been recommended to the community for a long time but in reality, the achievement of immunization coverage targets is still not as expected as 71%.

Method

The design used in this study is logistic regression. The population is all mothers with babies. The sample size was 53 respondents using the

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Simple random sampling technique. The independent variable of research is family knowledge and support. The dependent variable is immunization status. Data we collected using a questionnaire were then analyzed using the logistic regression test with a significance level of α ≤ 0.05. This research has obtained a letter of appropriate research ethics.

Results

Table 1. Distribution of Frequency of Respondents based on Knowledge

No	Knowledge	Frequency	%
1	Less	13	24,5
2	Enough	26	49,1
3	Good	14	26,4
	Total	**53**	**100**

The results showed that almost half of the respondents had sufficient knowledge of 26 respondents (49.1%).

Table 2. Distribution of Frequency of Respondents based on family support

No	Family Support	Frequency	%
1	Less	16	30,2
2	Enough	21	39,6
3	Good	16	30,2
	Total	**53**	**100**

The results showed that most respondents had sufficient family support of 21 respondents (39.6%).

Table 3. Distribution of Respondent Frequencies based on Immunization Status

No	Immunization Status	Frequency	%
1	Incomplete	19	35,8
2	Complete	34	64,2
	Total	**53**	**100**

The results showed that most respondents had complete immunization status 34 respondents (were 64.2%). The statistical test in this study uses a logistic regression test, as the test results are listed in the table above. Statistical test results in this study indicate that the significance value of the p-value from the Wald test is 0.042, which means that each variable gives a partial effect. The next stage statistical test results found that p <a with a value of <0.05, this is seen in Overall Statistics with a significance value of (p) 0,000 which means that there are variables that affect immunization status. When seen, the value (p) on each independent variable, that is, the knowledge variable has a value (p) of 0,000; family support has a value (p) of 0,000. This means there is a Relationship between Basic Immunization Status Based on Characteristics of Knowledge and Family Support

Discussion

The statistical test in this study uses a logistic regression test, as the test results are listed in the table above. Statistical test results in this study indicate that the significance value of the p value from

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the Wald test is 0.042, which means that each variable gives a partial effect. The next stage statistical test results found that p <a with a value of <0.05, this is seen in Overall Statistics with a significance value of (p) 0,000 which means that there are variables that affect immunization status. When seen, the value (p) on each independent variable, that is, the knowledge variable has a value (p) of 0,000, and family support has a value (p) of 0,000. This means there is a Relationship between Basic Immunization Status Based on Characteristics of Knowledge and Family Support. The results showed that almost half of the respondents had complete immunization status with adequate family support for 18 respondents (34%). The results showed that almost half of the respondents had sufficient knowledge, with sufficient immunization status of 18 respondents (34%). The results showed that almost half of the respondents had sufficient family support, with sufficient knowledge of 17 respondents (32.1%).

Several studies have found that maternal health behavior has a huge role in basic immunization programs (Kim et al., 2019; MacDonald et al., 2018; Piot et al., 2019). The health behavior is a response shown by the mother to stimuli originating from outside and from within the mother herself and can be influenced by several factors. Factors related to complete primary immunization in infants with IDL coverage of 68.5% included maternal knowledge and maternal attitudes. Maternal knowledge, maternal attitudes, family support, and health worker support are related to 61.5% of complete primary immunization status. There is a relationship between maternal knowledge, maternal attitudes, and family support for providing primary immunization to infants. There is a relationship between maternal knowledge and attitudes about immunization with the children's immunization status. Problems related to complete primary immunization status in infants are essential to be examined to achieve UCI targets (Gomes-Filho et al., 2019; Ilmiati, 2021; Vann et al., 2018).

Based on the study results, there is a Relationship between Basic Immunization Status Based on Characteristics of Knowledge and Family Support. Respondents understand that vaccines are given by injection or by oral/oral means. Against the administration of the vaccine, the body makes substances against the disease concerned, and blood tests can measure the levels of substances. Giving vaccines by injecting germs or pure antigens will cause illness. Therefore, it is needed in the form of a vaccine, a weakened germ. Giving the vaccine will stimulate the body to form antibodies. Good family knowledge and support will support the completeness of immunization in infants.

Conclusion

The study's results found that nearly half the respondents had sufficient knowledge. The results of the study found that most respondents had sufficient family

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support. The results of the study found that most respondents had complete immunization status. The statistical test in this study uses a logistic regression test, as the test results are listed in the table above. Statistical test results in this study indicate the significance value, which means that each variable gives a partial effect. some variables affect immunization status, and there is a Relationship between Basic Immunization Status Based on Characteristics of Knowledge and Family Support.

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